

Force :- Force is defined as a push or pull to move an object.

Some applications of force in everyday life are -

1. You apply force to open or close a door.
2. You apply force to lift your bags.
3. The earth applies force on every object to pull it down.

• Effects of force :-

1. force can set a body at rest into motion.
2. force can change the speed of the body.
3. force can change the direction of the body.
4. force can change the shape of an object.

Types of forces :-

On the basis of interaction between objects -

1. Contact force

- a. Muscular force
- b. Mechanical force

2. Non-Contact Force

- a. Magnetic force
- b. Electrical force
- c. Gravitational force

1. Contact Force :- These are the types of forces in which the two interacting objects are in physical contact with each other.

(a) Muscular Force :-

The force needed for doing all these activities is produced by the muscles and is known as the muscular force.

(b) Mechanical Force :- When a machine is used to generate force, it is called mechanical force.

ex- Knife, Scissors, Hammer etc.

2. Non-Contact Force :-

These are the type of forces where two interacting objects act from a distance.

(a) Gravitational Force :-

"The force with which the earth pulls everything towards itself."

(b) Magnetic Force :-

The force exerted by a magnet on objects made of iron, or other magnetic substance.

© Electrical Force :-

The attractive force produced due to electrical charges.

Questions

Que 1. Define force.

Que 2. Explain two effects of force with examples.

Que 3. What is difference between electrical and magnetic force?

Que 4. Give two examples of contact or non-contact force.

Que 5. State whether true or false -

(a) A force always changes the state of motion of the body.

(b) The mechanical force is not action-at-a distance.

(c) Magnetic force is an example of non-contact force.